McNeely Lake Park Master Plan

PUBLIC MEETING #1

September 13, 2011

Master Planning Process

Step One: Awareness

Step Two: Exploration

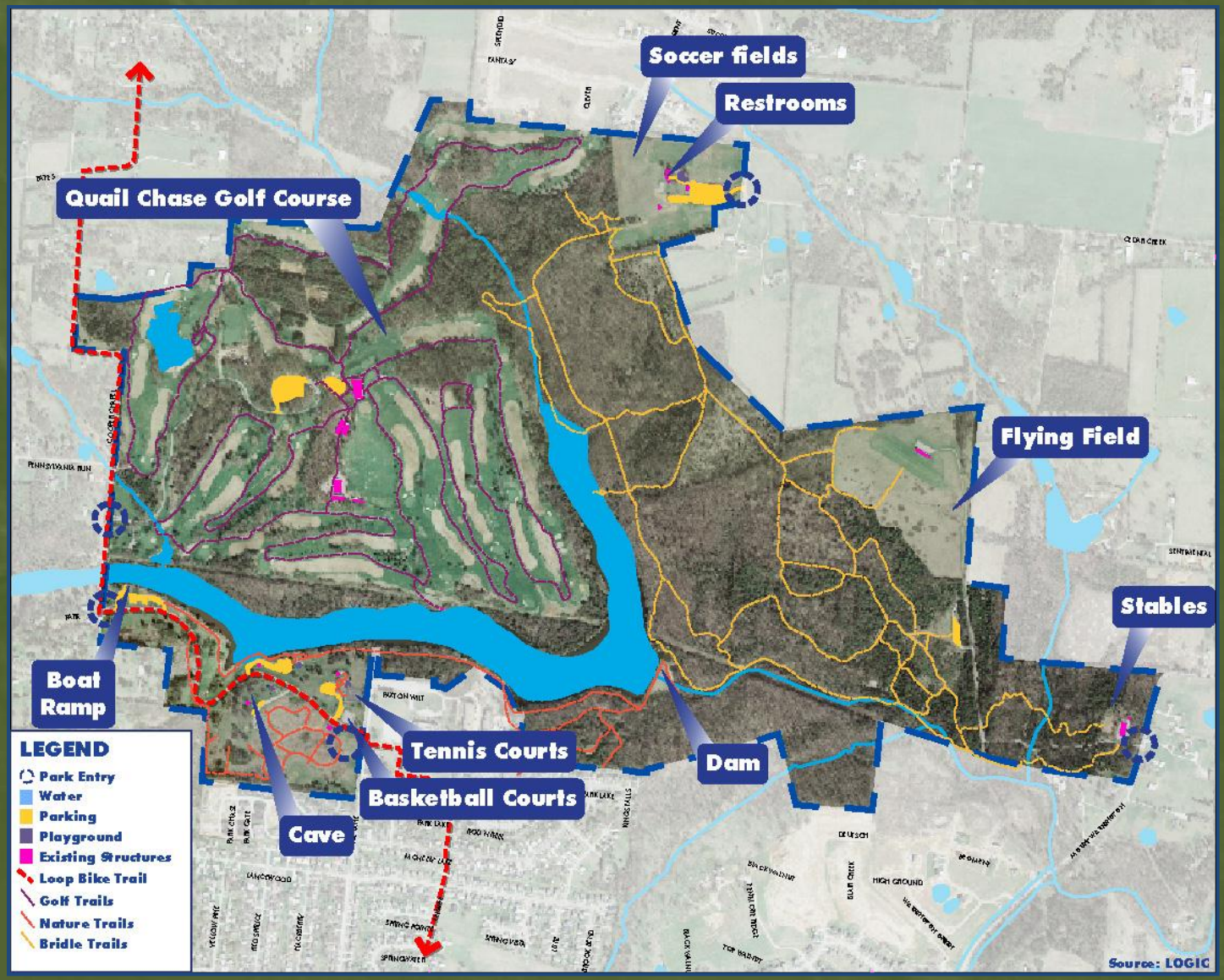
Step Three: Vision

SITE CONTEXT

Inventory/Analysis

EXISTING FEATURES

- Lake
- Shelters
- Parking Areas
- Play Areas
- Basketball
- Soccer
- Tennis
- Nature Trails
- Golf Course
- Bridle Trails
- Stables



McNEELY LAKE PARK MASTER PLAN

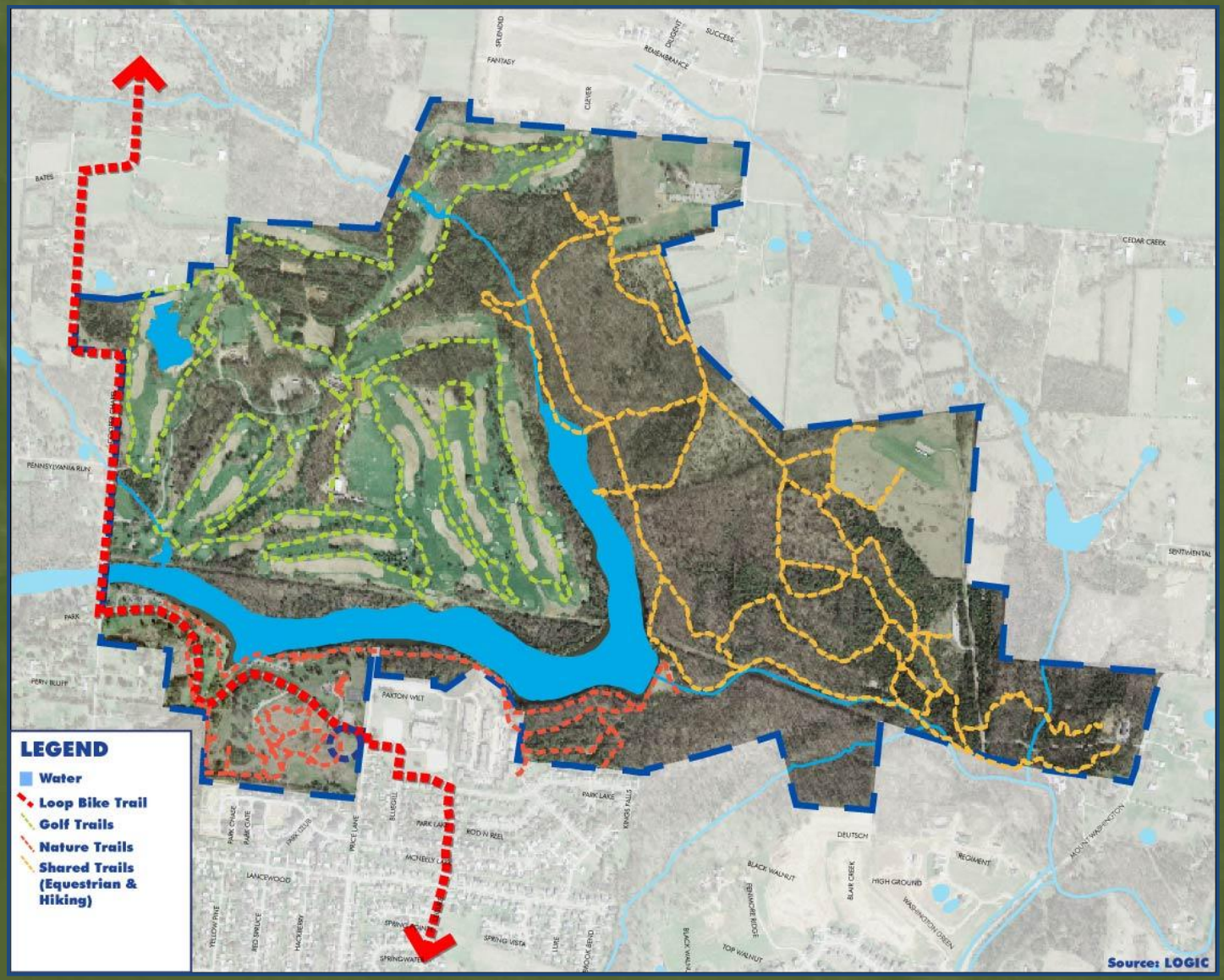
Inventory/Analysis

EXISTING PARK FEATURES

Inventory/Analysis

TRAILS

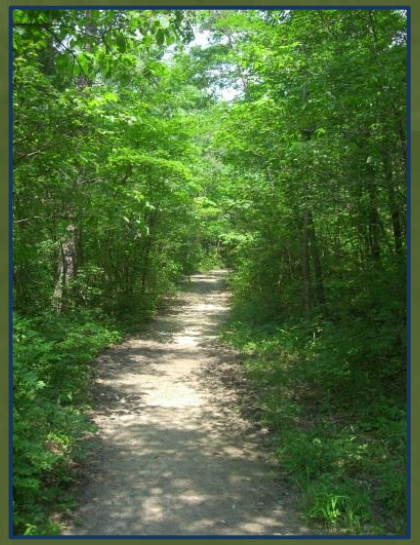
- Shared (Equestrian & Hiking)
- Nature
- Golf
- Proposed Louisville Loop Bike Trail Connection



Inventory/Analysis

TRAILS

- Nature
- Equestrian
- Golf
- Bike

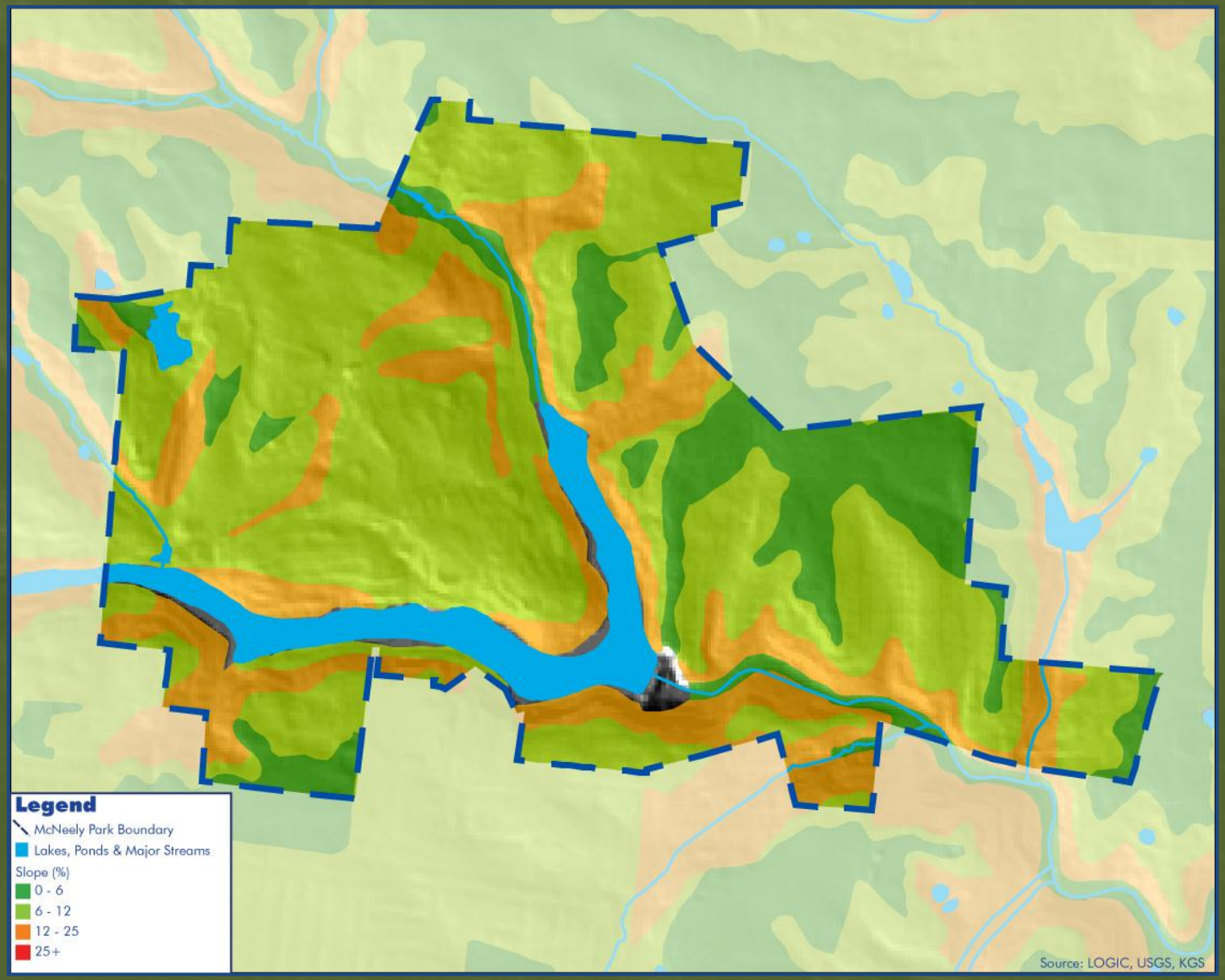


NATURAL RESOURCES

Inventory/Analysis

SLOPE

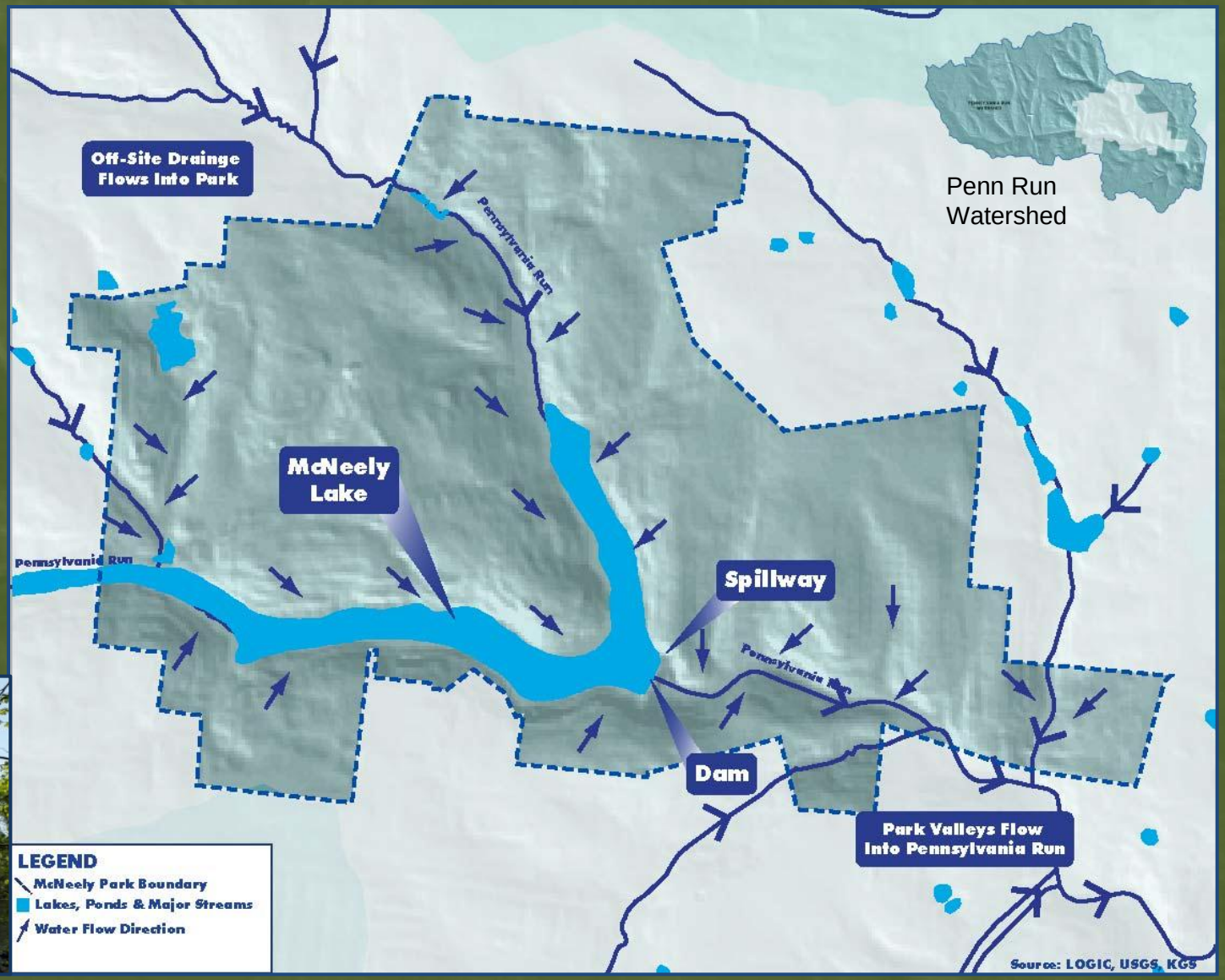
On-site topography varies from flat to moderately steep and influences the location of both existing & new facilities.



Inventory/Analysis

HYDROLOGY

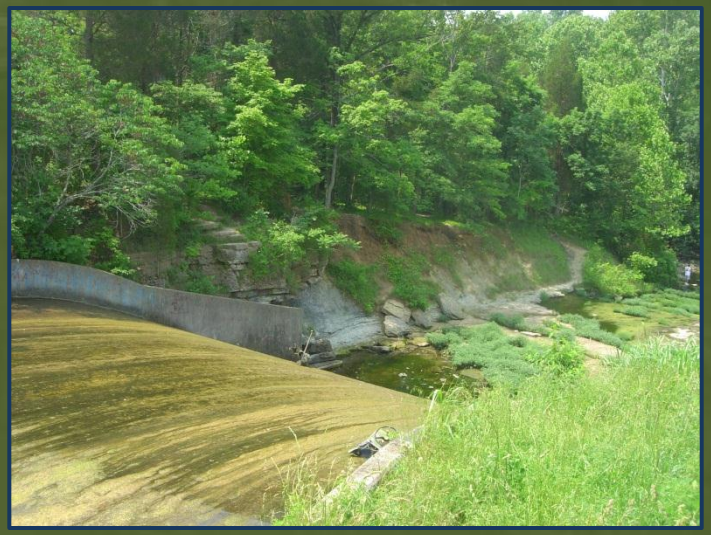
Site offers a wide variety of water features

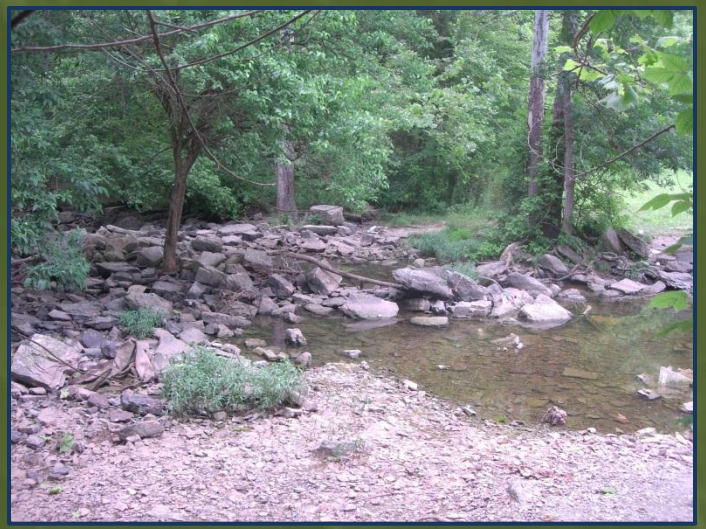


Inventory/Analysis

DAM/SPILLWAY

- Spillway is in need of substantial repairs and improvements
- East edge has been compromised and significant erosion has occurred downstream.





Inventory/Analysis

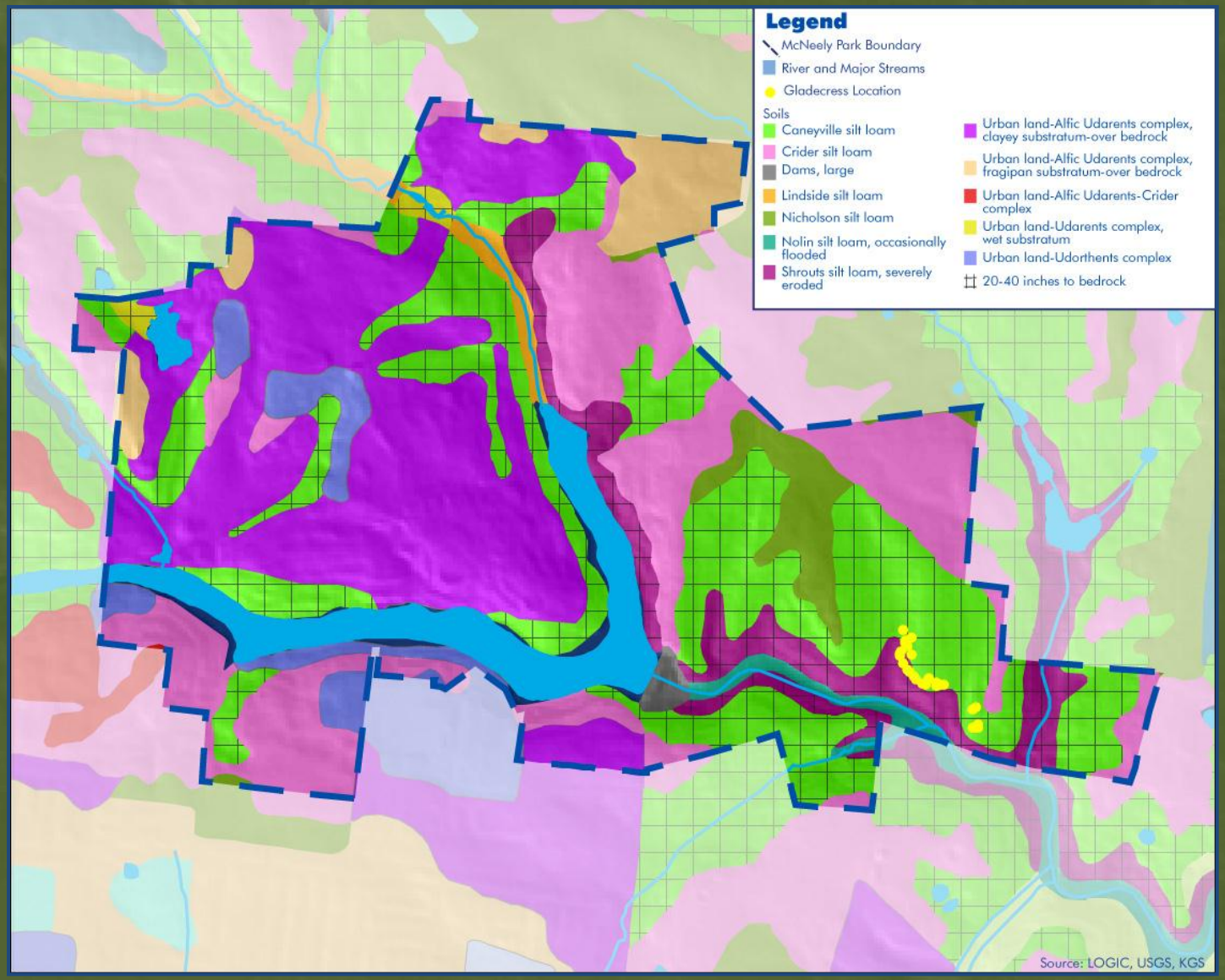
SOILS

20 – 40 inches to Paralithic (weak) bedrock

- Shrouts silt loam

20 – 40 inches to Lithic (strong) bedrock

- Caneyville silt loam; Caneyville-Rock outcrop; Urban Land-Udarents complex, wet substratum

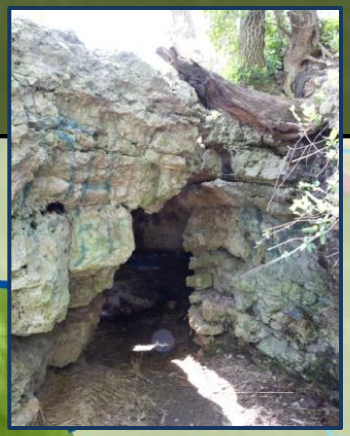


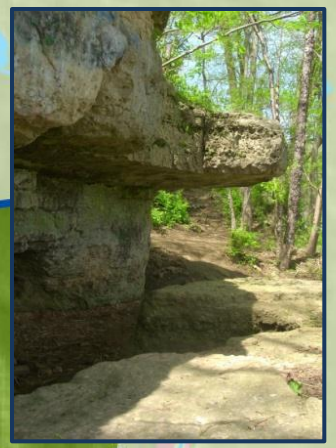
McNEELY LAKE PARK MASTER PLAN

Inventory/Analysis

GEOLOGY

- Karst- Formed by underground erosion of rocks (i.e., limestone).
- Support unique ecosystems and species (i.e., caves and gladecress)

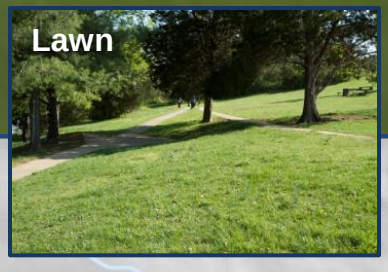


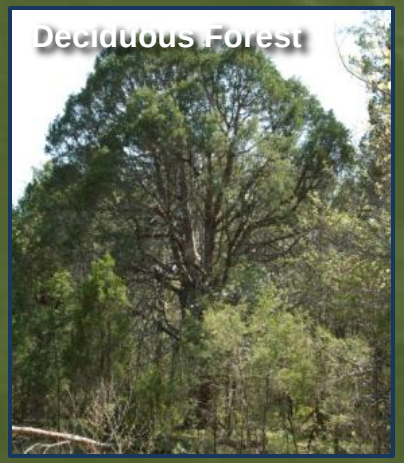


McNEELY LAKE PARK MASTER PLAN

Inventory/Analysis

EXISTING VEGETATION



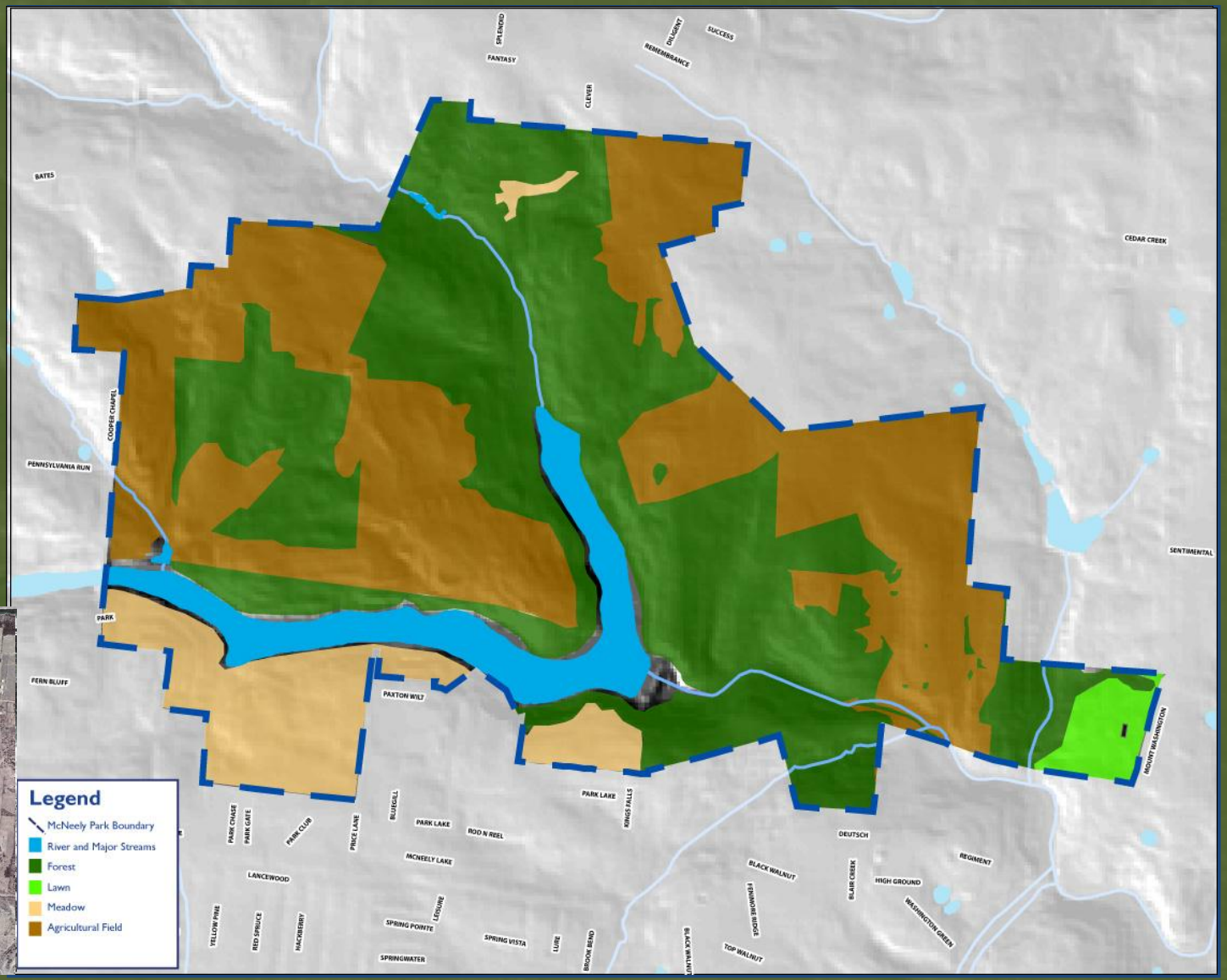


Inventory/Analysis

Historic Canopy: 1937

Historic Canopy: 1950

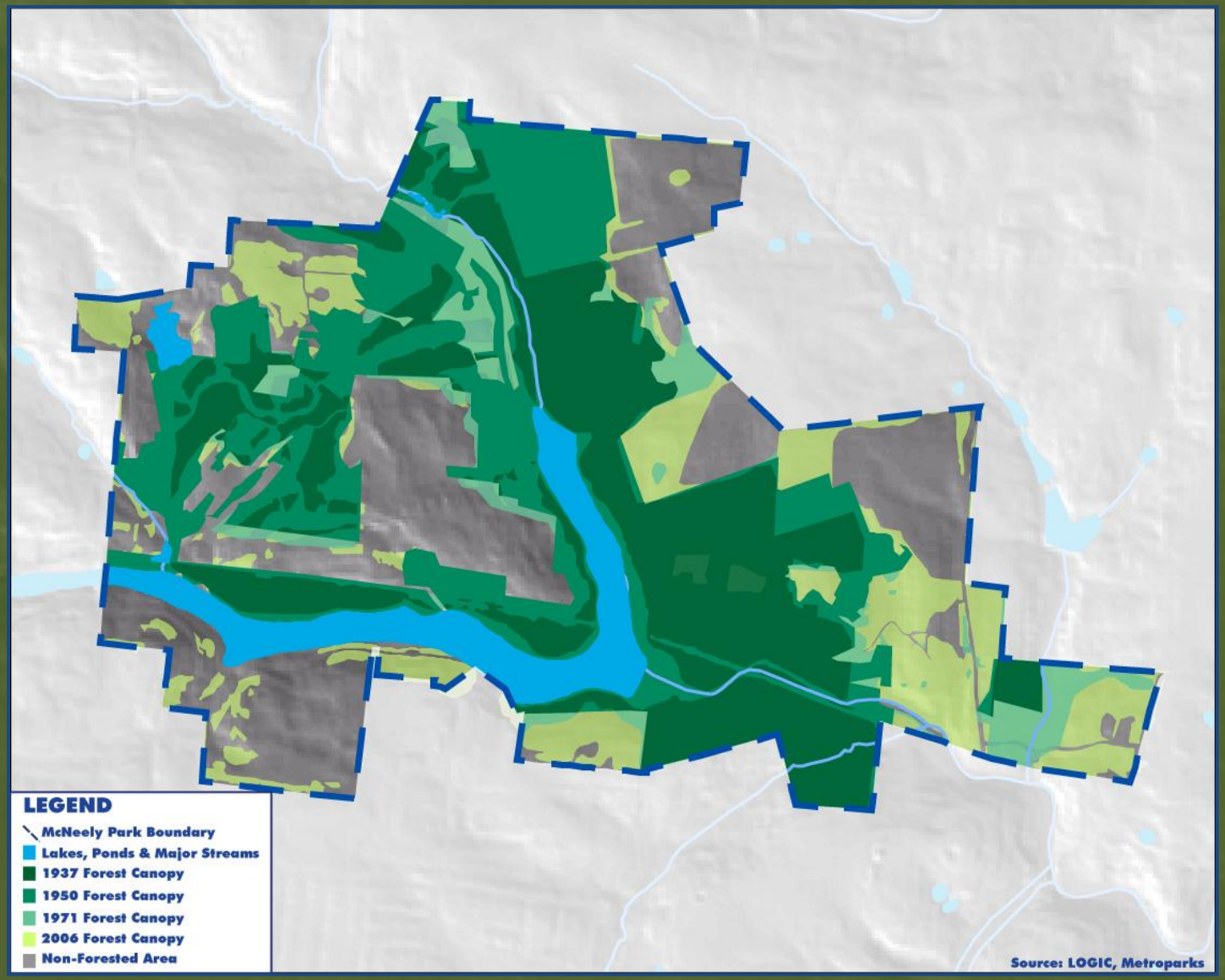
Historic Canopy: 1971



Inventory/Analysis

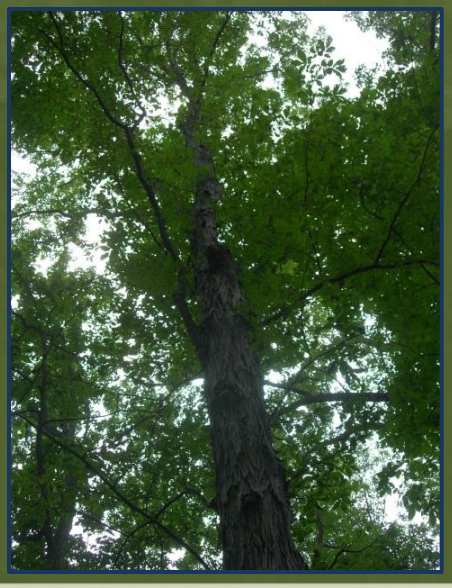
FOREST CANOPY PROGRESSION

- Since 1937 the forest canopy has grown considerably.
- The most mature forests are shown in dark green.



Inventory/Analysis

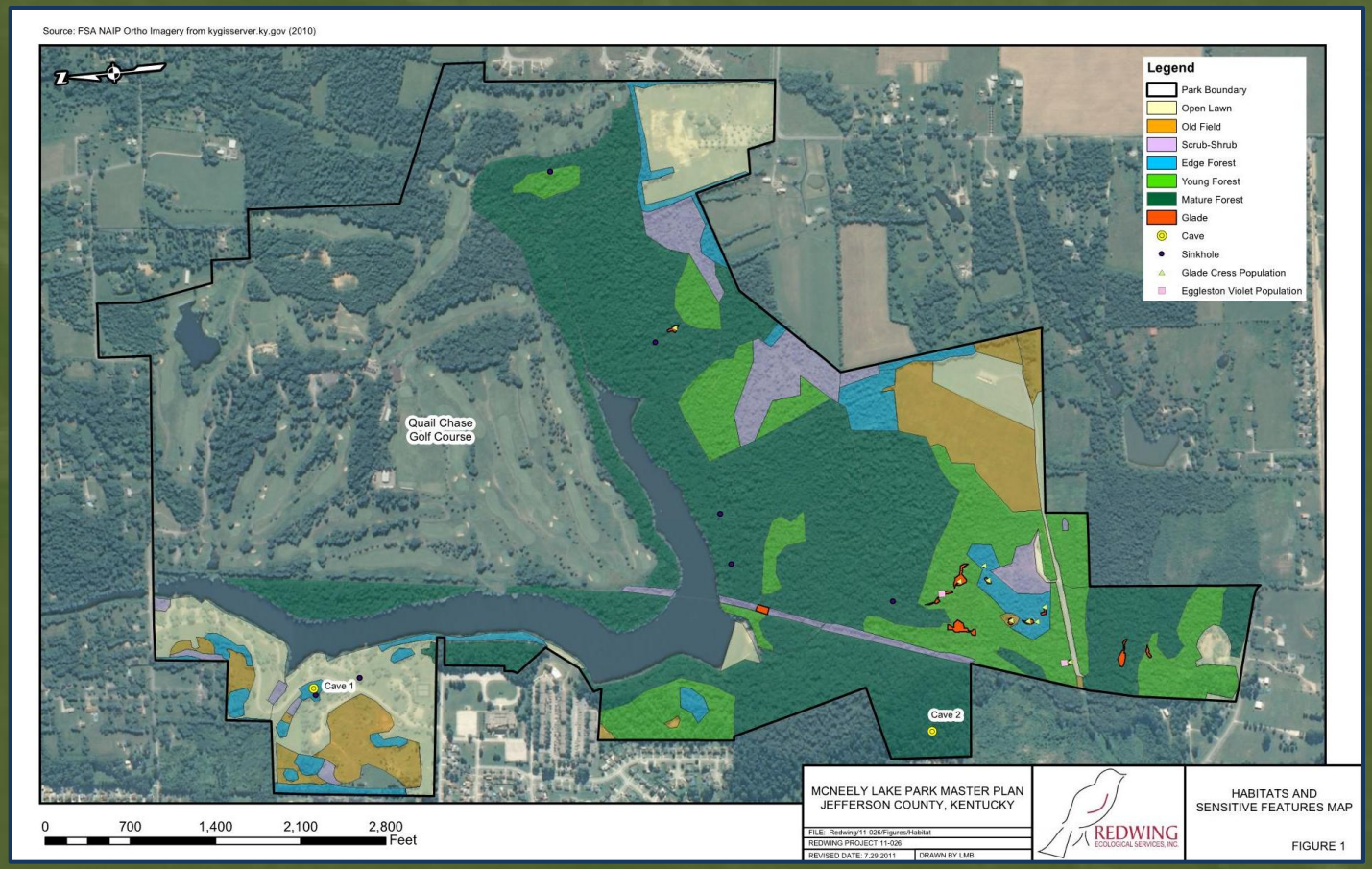
FOREST CANOPY



Inventory/Analysis

HABITATS & SENSITIVE FEATURES

- Remove infected Ash trees
- Protect McNeely Lake Cave
- Avoid development that would increase erosion to water
- Promote unmown, native vegetated buffers along lake
- Retain higher quality woods in south-central section of park
- Bush honeysuckle removal
- Avoid disturbance to karst features (e.g., caves, sinkholes, seeps)



Inventory/Analysis

NATURAL RESOURCES: PARK HABITATS

Inventory/Analysis

NATURAL RESOURCES:
UNIQUE LANDSCAPE FEATURES

Inventory/Analysis

HABITAT SUMMARY MATRIX

Habitat	Description	Potential Use by Federally-Listed Threatened and Endangered Species									
		Indiana Bat	Gray Bat	Kirtland's Snake	Clubshell	Louisville Crayfish	Running Buffalo Clover	Glade Cress	Eggleston's Violet	American Burying Beetle	Louisvile Cave Beetle
		Myotis sodalis	*Myotis grisescens*	*Clonophis kirtlandii*	*Pleurobema clava*	*Orconectes jeffersoni*	*Trifolium stoloniferum*	*Leavenworthia exigua var. laciniata*	*Viola septemloba subsp. egglestonii*	*Nicrophorus americanus*	*Pseudanophthalmus troglodytes*
		Federal Endangered	Federal Endangered	Federal Species of Concern	Federal Endangered	Federal Species of Concern	Federal Endangered	Federal Candidate	(Kentucky Special Concern)	Federal Endangered	Federal Candidate
Open Lawn	Regularly mowed lawn and maintained landscape areas, including shade trees.	Yes - in some scattered trees	No	Yes	No	No	No	No	No	No	No
Scrub-Shrub	Habitat dominated by shrubs and saplings. May have scattered young or mature trees.	Yes - in some scattered trees	No	Yes	No	No	No	No	No	Yes**	No
Old Field	Infrequently (annually or semi-annually) mowed with taller grasses, forbs, and small shrubs.	Yes - in some scattered trees	No	Yes	No	No	No	No	No	Yes**	No
Edge Forest	Mix of shrubs, saplings, and young or mature trees. The canopy is often uneven or "bumpy" on top due to different heights of vegetation.	Yes	Yes - foraging habitat	Yes	No	No	Yes	No	No	Yes**	No
Young Forest	Habitat dominated by young trees with a closed canopy, containing shade-tolerant or partial-shade species in the understory.	Yes	Yes - foraging habitat	No	No	No	Yes	No	No	Yes**	No
Mature Forest	Habitat dominated by mature trees (>8in dbh) with a closed canopy, containing shade-tolerant species in the understory.	Yes	Yes - foraging habitat	No	No	No	Yes	No	No	Yes**	No
Glade	Habitat with shallow bedrock that limits tree and shrub growth. Contains specially-adapted grasses and herbs.	No	No	No	No	No	No	Yes	Yes	No	No
Aquatic Habitat and Sensitive Features	Streams, wetlands, caves, and sinkholes.	Yes - roosts in caves*, forages along streams	Yes - roosts in caves, forages along streams	Yes - in wetlands and around streams	Yes - in perennial streams	Yes - in perennial streams	No	No	No	No	Yes - in caves

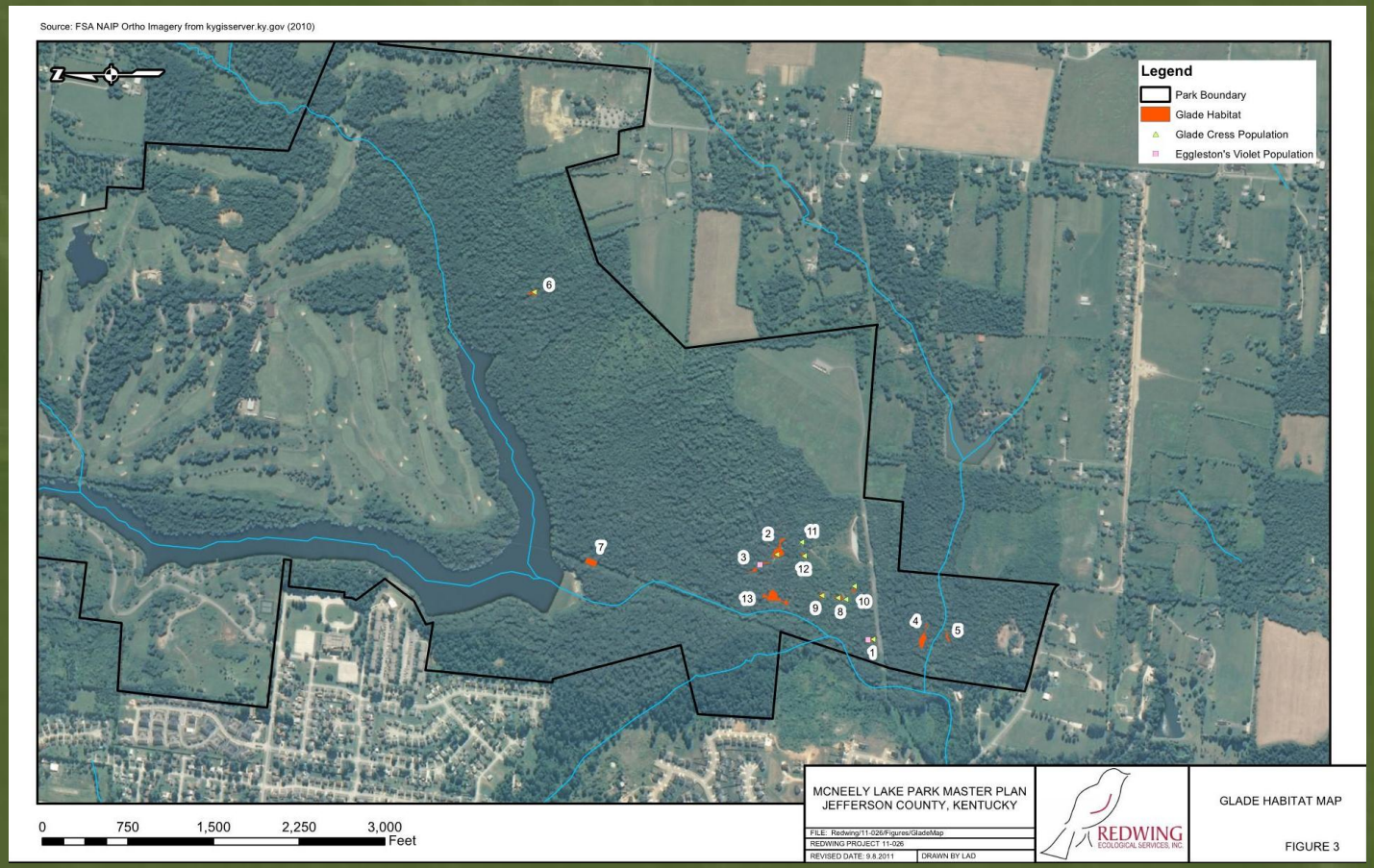
*The Indiana bat roosts in caves in winter, and in trees with cracks, cavities, or exfoliating bark in the summer.

**However, the species is considered extirpated from Jefferson County and no known re-introduction efforts are underway.

Inventory/Analysis

GLADE HABITAT

- 13 glade areas found ranging in size, plant diversity, weed invasion, accessibility, and human disturbance
- Glades are unique habitats with shallow bedrock that limits tree and shrub growth
- Focus restoration efforts on most stable glade areas



Inventory/Analysis

GLADE HABITAT SUMMARY

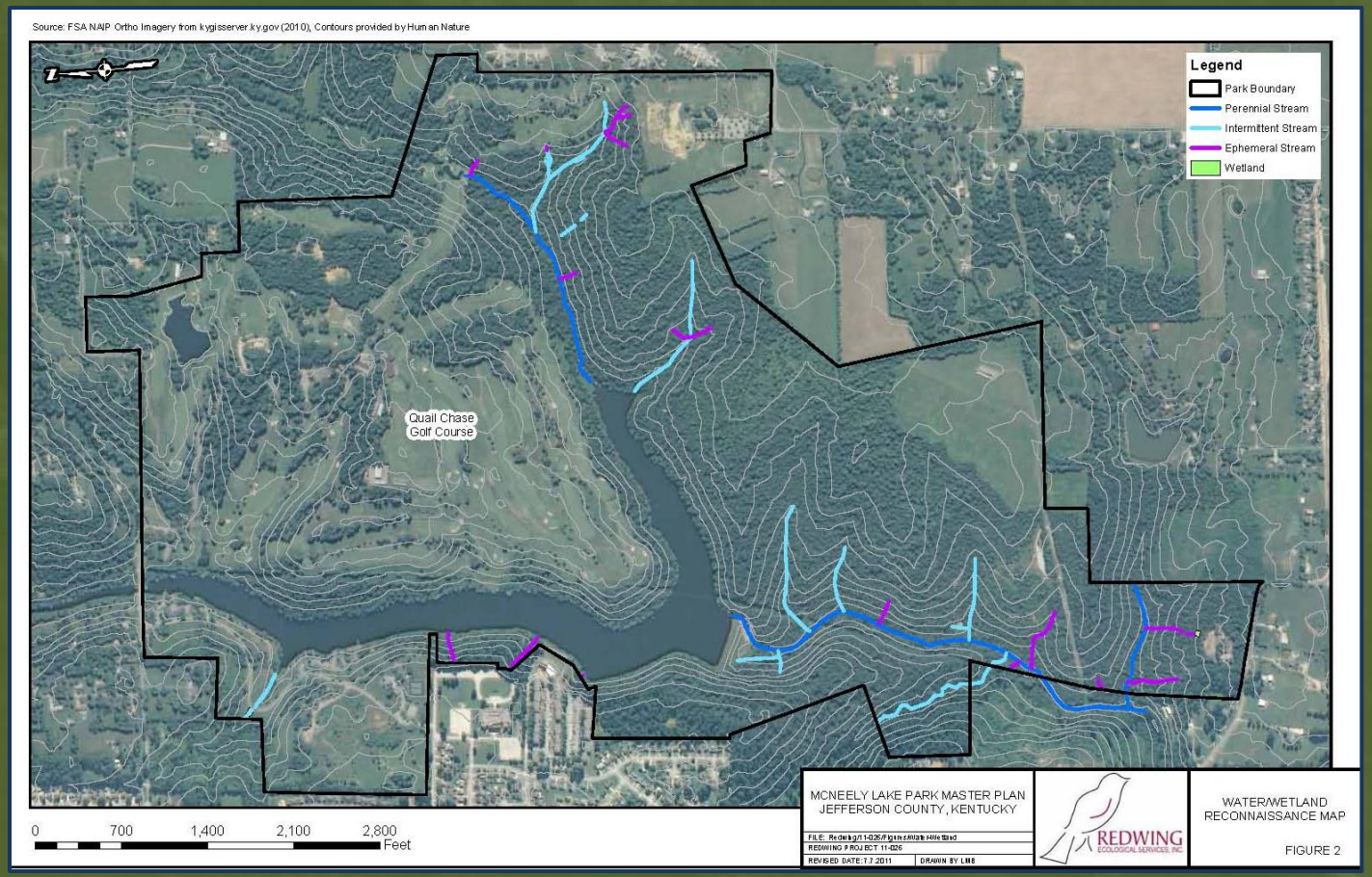
Glade	Location*	Size	Exposed Rock	Species Observed					
				Glade Cress *Leavenworthia exigua*	False Aloe *Manfreda virginica*	Eggleston's Violet *Viola septemloba subsp. egglestonii*	Little Skullcap *Scutellaria parvula*	Whorled Milkweed *Asclepias verticillata*	Flatstem Spikerush *Eleocharis compressa*
1	Off road north of horse stables	0.039	Yes	X	X	X	X		
2	Along trail north of horse trailer parking lot	0.198	Yes	X	X		X	X	X
3	Along trail and old road northwest of Glade 2	0.084	Yes		X	X	X		
4	North of stream, north of horse stables	0.156	No		X		X		X
5	South of stream, north of horse stables	0.044	No		X				X
6	North of flying field, south of west arm of lake	0.065	Yes	X	X		X		X
7	In powerline easement east of lake dam	0.126	No		X			X	
8	North of trail intersection, northwest of horse trailer parking lot	0.051	Yes	X					
9	Just north of Glade 8	0.04	Yes	X					X
10	Just south and across trail from Glade 8	0.038	Yes	X				X	
11	Small area off trail	0.003	Yes	X			X		
12	North of trail intersection, north of horse trailer parking lot	0.034	Yes	X			X		X
13	Just east of streamside trail, northwest of horse trailer parking lot	0.252	Yes		X			X	X

*See Figure 3 for mapped location

Inventory/Analysis

WATER & WETLANDS

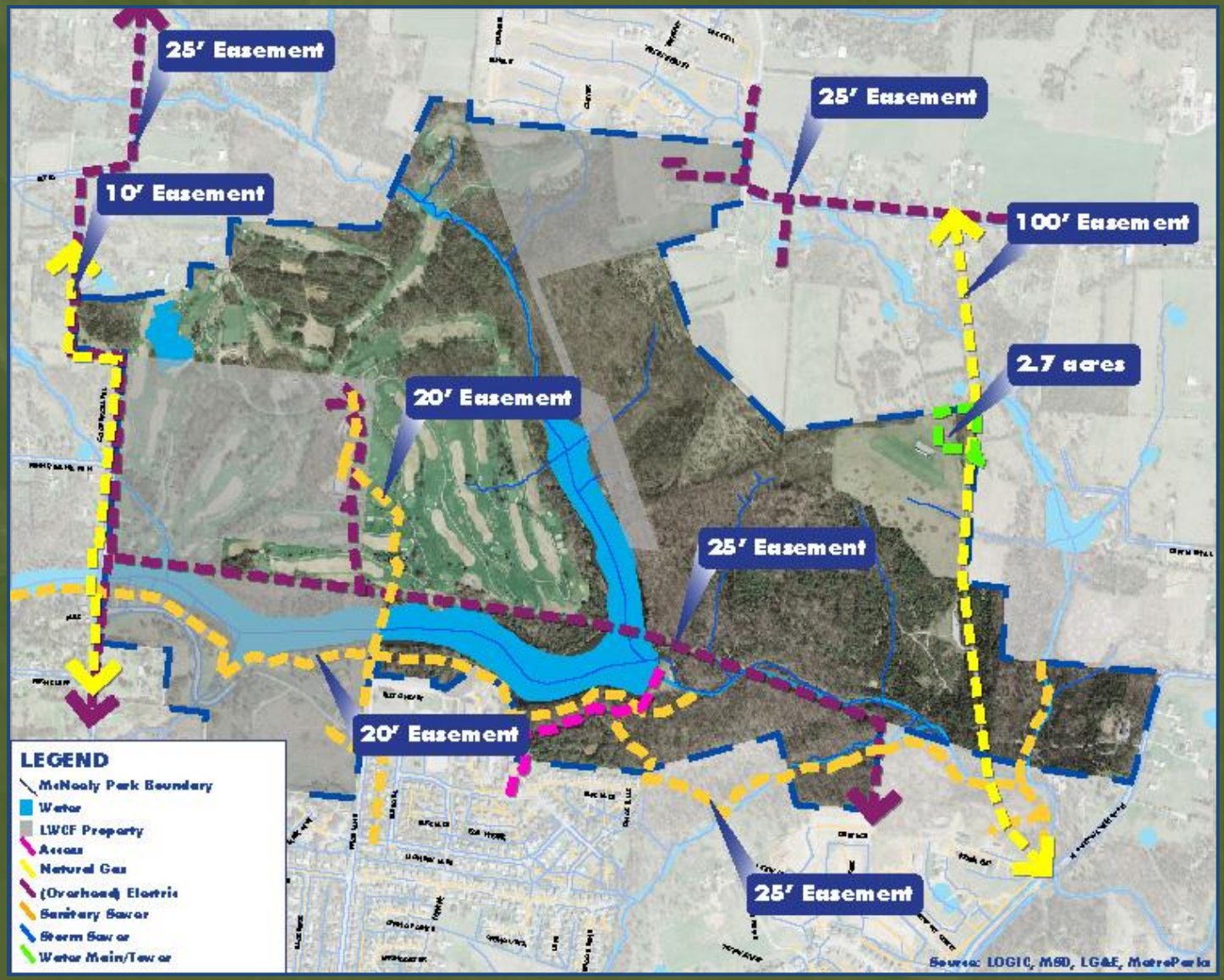
- Some intermittent streams are connected to sinkholes and seeps
- Wetlands are small and uncommon within the park
- Focus restoration / preservation efforts (including trash and honeysuckle removal) on perennial streams (higher quality)
- Retain wooded riparian corridors



Inventory/Analysis

EASEMENTS

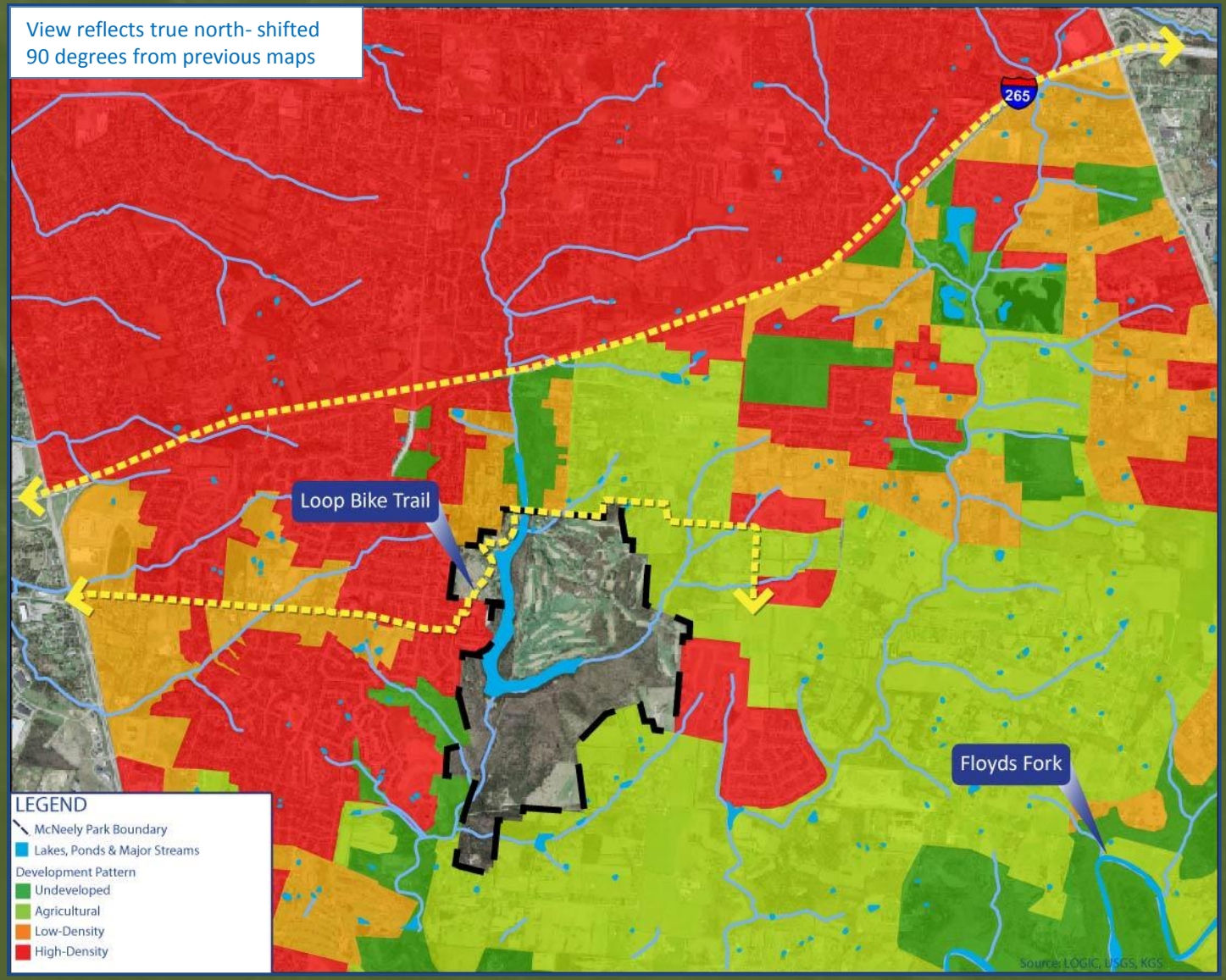
- Several utility easements cross through the site affecting its appearance and usage
- 2.7 acres to be purchased by Louisville Water Company for proposed Water Tower
- LWCF property



Inventory/Analysis

DEVELOPMENT PATTERNS

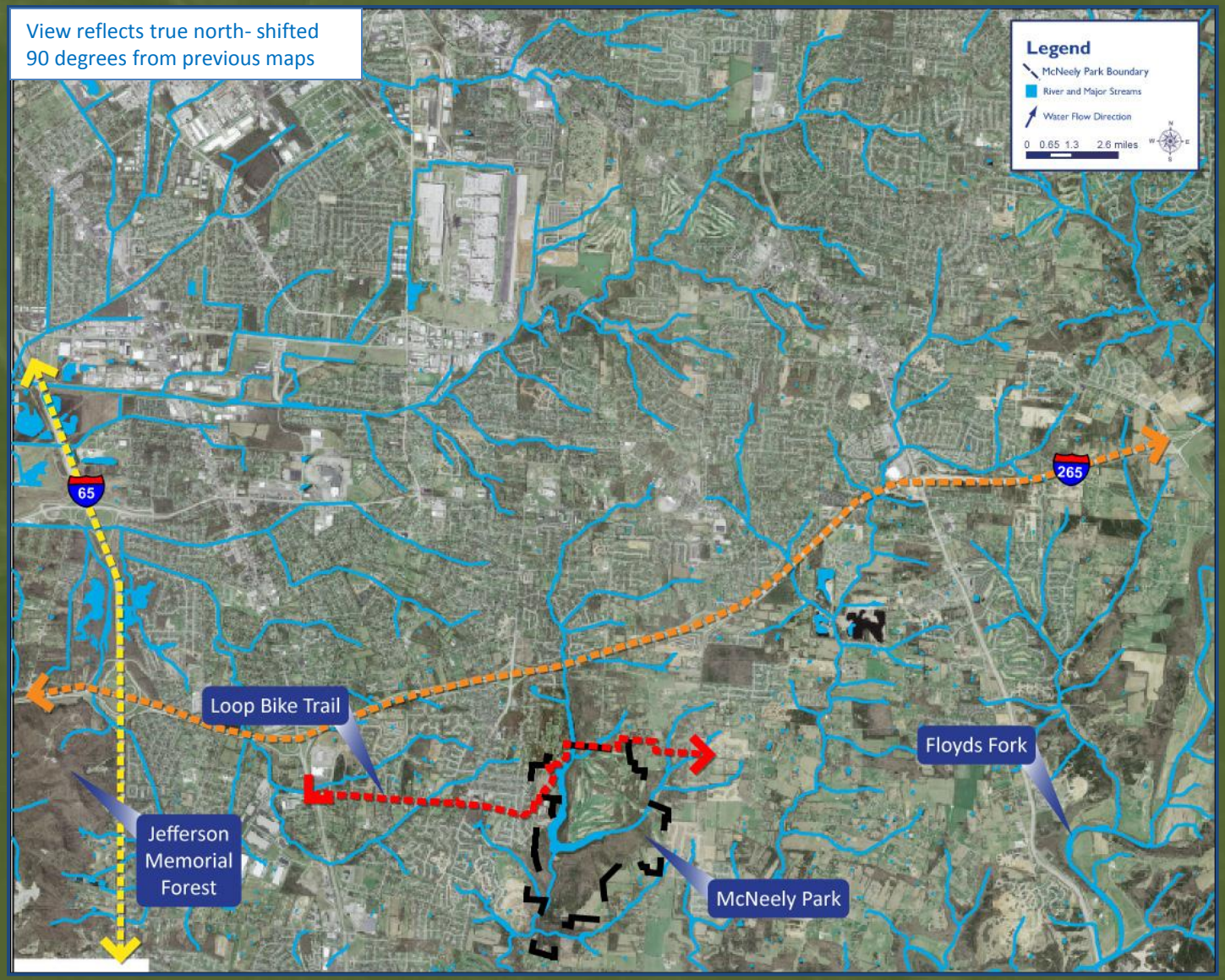
The park is on the edge of evolving land use patterns, between higher density residential development and lower density agricultural lands.



Inventory/Analysis

CONTEXT

- McNeely Lake Park could serve as an ecological stepping stone between Jefferson Memorial Forest and the Floyds Fork watershed.
- The park is part of a chain of parks along the proposed Louisville Loop trail system.



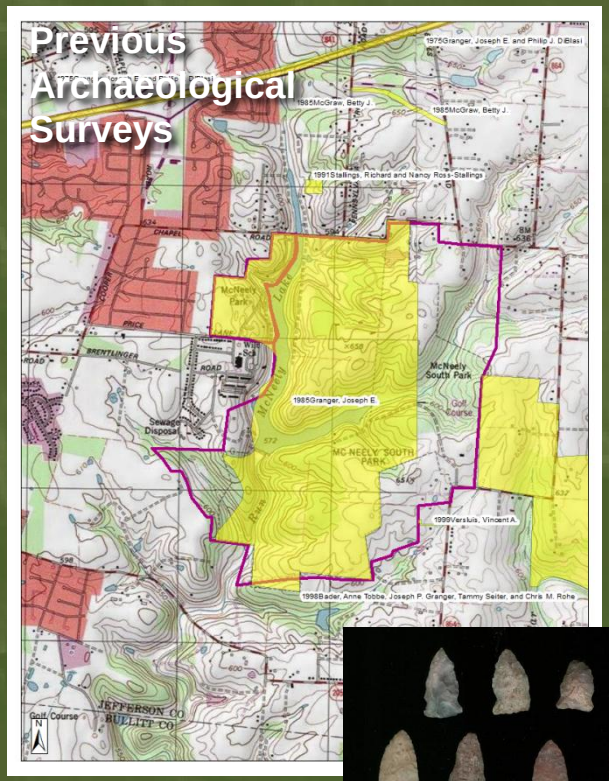
CULTURAL RESOURCES

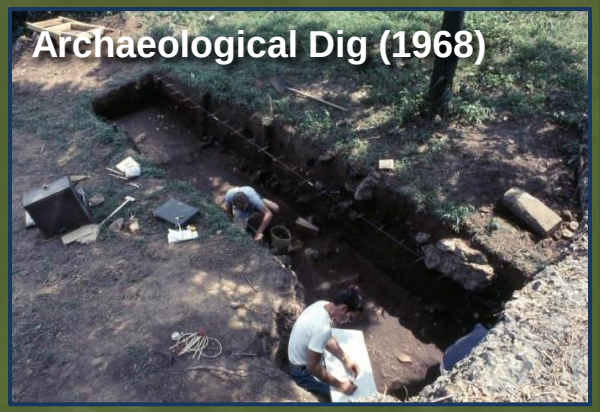
Inventory/Analysis

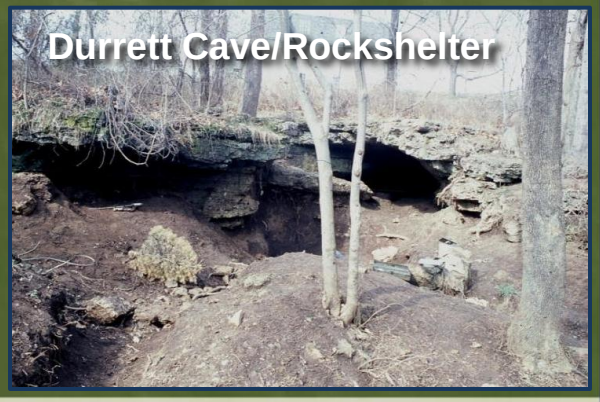
ARCHAEOLOGICAL FEATURES

- McNeely Lake Cave (15JF200)
- Durrett Cave/ Rockshelter (15JF201)
- Cooper Cave/ Rockshelter (15JR537)

Several archaeological studies indicate that the caves and rockshelters in the area were used by Native Americans for centuries for shelter, resources, storage and burials.





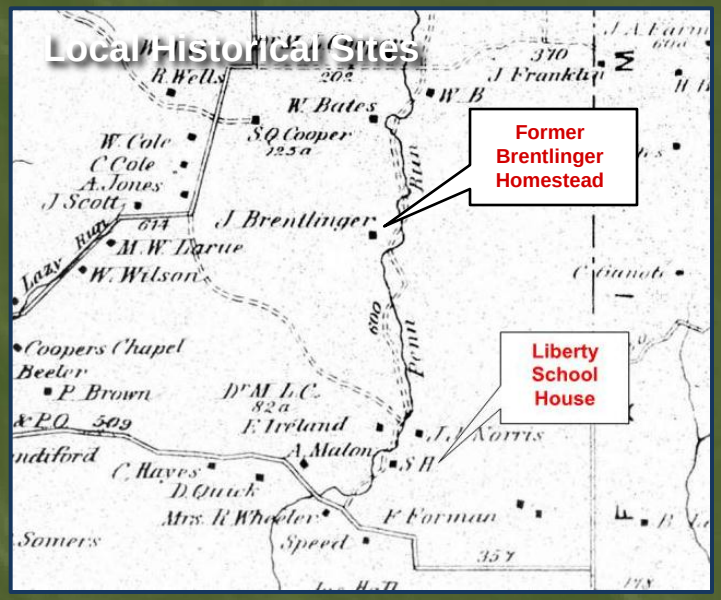


Inventory/Analysis

CULTURAL RESOURCES

- Old Liberty Number One School
- Former Brentlinger homestead
- Former limestone bridge abutments
- Korean War Memorial

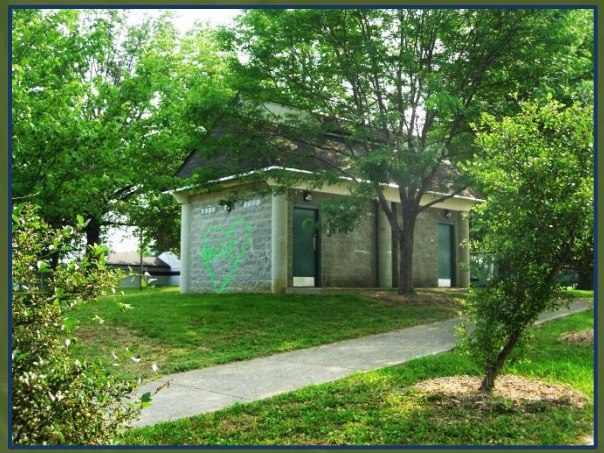
No significant intact historical structures remain within the park. Some homestead ruins and bridge abutments are of some interest and may suggest some interpretive opportunities.



Inventory/Analysis

SITE CHARACTER:

BUILT ELEMENTS

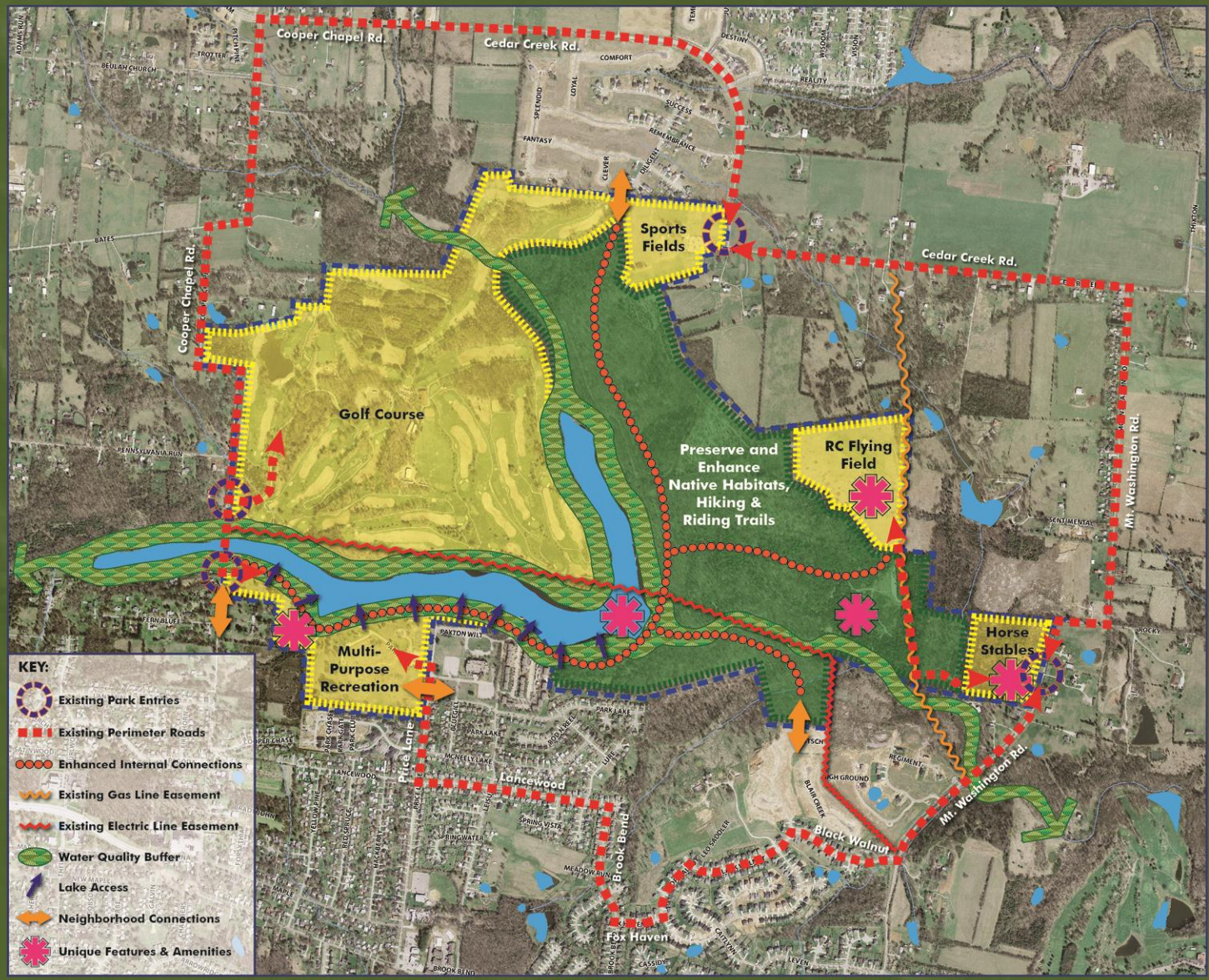


McNEELY LAKE PARK MASTER PLAN

Site Analysis

OBSERVATIONS

- Lake is a major asset that needs to be protected and enhanced.
- Park is fragmented into several parts, without good access from one side to the other.
- A broad spectrum of cultural and natural features should be celebrated. The lake, glade cress and karst features are some of the things that make this park unique in the system



NEXT STEPS

We need your input!

McNeely Lake Park Master Plan

Public Meeting #1

09.13.2011

AGENDA

- Introduction
- Findings Summary
- Community Input